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NOTICE OF ALLOWANCE AND FEE(S) DUE

25889 7590 08/07/2008

COLLARD & ROE, P.C.
1077 NORTHERN BOULEVARD
ROSLYN, NY 11576

EXAMINER

VU, QUYNH-NHU HOANG

ART UNIT

PAPER NUMBER

3763

DATE MAILED: 08/07/2008

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/517,928

12/14/2004

Peter Eichhorst

EICHHORST - 1 PCT

6882

TITLE OF INVENTION: DEVICE FOR NEEDLE-FREE INJECTION OF A MEDIUM INTO THE TISSUE OF A HUMAN OR AN ANIMAL, DEVICE FOR NEEDLE FREE PRODUCTION OF AN INJECTION CHANNEL AND METHOD FOR THE NEEDLE FREE INJECTION OF A MEDIUM IN THE TISSUE

APPLN. TYPE	SMALL ENTITY	ISSUE FEE DUE	PUBLICATION FEE DUE	PREV. PAID ISSUE FEE	TOTAL FEE(S) DUE	DATE DUE
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nonprovisional

YES

\$720

\$300

\$0

\$1020

11/07/2008

THE APPLICATION IDENTIFIED ABOVE HAS BEEN EXAMINED AND IS ALLOWED FOR ISSUANCE AS A PATENT. PROSECUTION ON THE MERITS IS CLOSED. THIS NOTICE OF ALLOWANCE IS NOT A GRANT OF PATENT RIGHTS. THIS APPLICATION IS SUBJECT TO WITHDRAWAL FROM ISSUE AT THE INITIATIVE OF THE OFFICE OR UPON PETITION BY THE APPLICANT. SEE 37 CFR 1.313 AND MPEP 1308.

THE ISSUE FEE AND PUBLICATION FEE (IF REQUIRED) MUST BE PAID WITHIN THREE MONTHS FROM THE MAILING DATE OF THIS NOTICE OR THIS APPLICATION SHALL BE REGARDED AS ABANDONED. THIS STATUTORY PERIOD CANNOT BE EXTENDED. SEE 35 U.S.C. 151. THE ISSUE FEE DUE INDICATED ABOVE DOES NOT REFLECT A CREDIT FOR ANY PREVIOUSLY PAID ISSUE FEE IN THIS APPLICATION. IF AN ISSUE FEE HAS PREVIOUSLY BEEN PAID IN THIS APPLICATION (AS SHOWN ABOVE), THE RETURN OF PART B OF THIS FORM WILL BE CONSIDERED A REQUEST TO REAPPLY THE PREVIOUSLY PAID ISSUE FEE TOWARD THE ISSUE FEE NOW DUE.

HOW TO REPLY TO THIS NOTICE:

I. Review the SMALL ENTITY status shown above.

If the SMALL ENTITY is shown as YES, verify your current SMALL ENTITY status:

A. If the status is the same, pay the TOTAL FEE(S) DUE shown above.

B. If the status above is to be removed, check box 5b on Part B - Fee(s) Transmittal and pay the PUBLICATION FEE (if required) and twice the amount of the ISSUE FEE shown above, or

If the SMALL ENTITY is shown as NO:

A. Pay TOTAL FEE(S) DUE shown above, or

B. If applicant claimed SMALL ENTITY status before, or is now claiming SMALL ENTITY status, check box 5a on Part B - Fee(s) Transmittal and pay the PUBLICATION FEE (if required) and 1/2 the ISSUE FEE shown above.

II. PART B - FEE(S) TRANSMITTAL, or its equivalent, must be completed and returned to the United States Patent and Trademark Office (USPTO) with your ISSUE FEE and PUBLICATION FEE (if required). If you are charging the fee(s) to your deposit account, section "4b" of Part B - Fee(s) Transmittal should be completed and an extra copy of the form should be submitted. If an equivalent of Part B is filed, a request to reapply a previously paid issue fee must be clearly made, and delays in processing may occur due to the difficulty in recognizing the paper as an equivalent of Part B.

III. All communications regarding this application must give the application number. Please direct all communications prior to issuance to Mail Stop ISSUE FEE unless advised to the contrary.

IMPORTANT REMINDER: Utility patents issuing on applications filed on or after Dec. 12, 1980 may require payment of maintenance fees. It is patentee's responsibility to ensure timely payment of maintenance fees when due.

PART B - FEE(S) TRANSMITTAL

**Complete and send this form, together with applicable fee(s), to: Mail Mail Stop ISSUE FEE
Commissioner for Patents
P.O. Box 1450
Alexandria, Virginia 22313-1450
or Fax (571)-273-2885**

INSTRUCTIONS: This form should be used for transmitting the ISSUE FEE and PUBLICATION FEE (if required). Blocks 1 through 5 should be completed where appropriate. All further correspondence including the Patent, advance orders and notification of maintenance fees will be mailed to the current correspondence address as indicated unless corrected below or directed otherwise in Block 1, by (a) specifying a new correspondence address; and/or (b) indicating a separate "FEE ADDRESS" for maintenance fee notifications.

CURRENT CORRESPONDENCE ADDRESS (Note: Use Block 1 for any change of address)

25889 7590 08/07/2008

COLLARD & ROE, P.C.
1077 NORTHERN BOULEVARD
ROSLYN, NY 11576

Note: A certificate of mailing can only be used for domestic mailings of the Fee(s) Transmittal. This certificate cannot be used for any other accompanying papers. Each additional paper, such as an assignment or formal drawing, must have its own certificate of mailing or transmission.

Certificate of Mailing or Transmission

I hereby certify that this Fee(s) Transmittal is being deposited with the United States Postal Service with sufficient postage for first class mail in an envelope addressed to the Mail Stop ISSUE FEE address above, or being facsimile transmitted to the USPTO (571) 273-2885, on the date indicated below.

(Depositor's name)
(Signature)
(Date)

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/517,928 12/14/2004 Peter Eichhorst EICHHORST - 1 PCT 6882

TITLE OF INVENTION: DEVICE FOR NEEDLE-FREE INJECTION OF A MEDIUM INTO THE TISSUE OF A HUMAN OR AN ANIMAL, DEVICE FOR NEEDLE FREE PRODUCTION OF AN INJECTION CHANNEL AND METHOD FOR THE NEEDLE FREE INJECTION OF A MEDIUM IN THE TISSUE

APPLN. TYPE	SMALL ENTITY	ISSUE FEE DUE	PUBLICATION FEE DUE	PREV. PAID ISSUE FEE	TOTAL FEE(S) DUE	DATE DUE
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nonprovisional YES \$720 \$300 \$0 \$1020 11/07/2008

EXAMINER	ART UNIT	CLASS-SUBCLASS
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VU, QUYNH-NHU HOANG 3763 604-068000

1. Change of correspondence address or indication of "Fee Address" (37 CFR 1.363).

- ☐ Change of correspondence address (or Change of Correspondence Address form PTO/SB/122) attached.
- ☐ "Fee Address" indication (or "Fee Address" Indication form PTO/SB/47; Rev 03-02 or more recent) attached. **Use of a Customer Number is required.**

2. For printing on the patent front page, list

- (1) the names of up to 3 registered patent attorneys or agents OR, alternatively, 1 _____
- (2) the name of a single firm (having as a member a registered attorney or agent) and the names of up to 2 registered patent attorneys or agents. If no name is listed, no name will be printed. 2 _____
- 3 _____

3. ASSIGNEE NAME AND RESIDENCE DATA TO BE PRINTED ON THE PATENT (print or type)

PLEASE NOTE: Unless an assignee is identified below, no assignee data will appear on the patent. If an assignee is identified below, the document has been filed for recordation as set forth in 37 CFR 3.11. Completion of this form is NOT a substitute for filing an assignment.

(A) NAME OF ASSIGNEE (B) RESIDENCE: (CITY and STATE OR COUNTRY)

Please check the appropriate assignee category or categories (will not be printed on the patent) : ☐ Individual ☐ Corporation or other private group entity ☐ Government

4a. The following fee(s) are submitted:

- ☐ Issue Fee
- ☐ Publication Fee (No small entity discount permitted)
- ☐ Advance Order - # of Copies _____

4b. Payment of Fee(s); (Please first reapply any previously paid issue fee shown above)

- ☐ A check is enclosed.
- ☐ Payment by credit card. Form PTO-2038 is attached.
- ☐ The Director is hereby authorized to charge the required fee(s), any deficiency, or credit any overpayment, to Deposit Account Number _____ (enclose an extra copy of this form).

5. Change in Entity Status (from status indicated above)

- ☐ a. Applicant claims SMALL ENTITY status. See 37 CFR 1.27. ☐ b. Applicant is no longer claiming SMALL ENTITY status. See 37 CFR 1.27(g)(2).

NOTE: The Issue Fee and Publication Fee (if required) will not be accepted from anyone other than the applicant; a registered attorney or agent; or the assignee or other party in interest as shown by the records of the United States Patent and Trademark Office.

Authorized Signature _____

Date _____

Typed or printed name _____

Registration No. _____

This collection of information is required by 37 CFR 1.311. The information is required to obtain or retain a benefit by the public which is to file (and by the USPTO to process) an application. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.14. This collection is estimated to take 12 minutes to complete, including gathering, preparing, and submitting the completed application form to the USPTO. Time will vary depending upon the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing this burden, should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, U.S. Department of Commerce, P.O. Box 1450, Alexandria, Virginia 22313-1450. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Commissioner for Patents, P.O. Box 1450, Alexandria, Virginia 22313-1450.

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10/517,928	12/14/2004	Peter Eichhorst	EICHHORST - 1 PCT	6882
25889	7590	08/07/2008	EXAMINER	
COLLARD & ROE, P.C. 1077 NORTHERN BOULEVARD ROSLYN, NY 11576			VU, QUYNH-NHU HOANG	
			ART UNIT	PAPER NUMBER
			3763	
DATE MAILED: 08/07/2008				

Determination of Patent Term Adjustment under 35 U.S.C. 154 (b) (application filed on or after May 29, 2000)

The Patent Term Adjustment to date is 562 day(s). If the issue fee is paid on the date that is three months after the mailing date of this notice and the patent issues on the Tuesday before the date that is 28 weeks (six and a half months) after the mailing date of this notice, the Patent Term Adjustment will be 562 day(s).

If a Continued Prosecution Application (CPA) was filed in the above-identified application, the filing date that determines Patent Term Adjustment is the filing date of the most recent CPA.

Applicant will be able to obtain more detailed information by accessing the Patent Application Information Retrieval (PAIR) WEB site (<http://pair.uspto.gov>).

Any questions regarding the Patent Term Extension or Adjustment determination should be directed to the Office of Patent Legal Administration at (571)-272-7702. Questions relating to issue and publication fee payments should be directed to the Customer Service Center of the Office of Patent Publication at 1-(888)-786-0101 or (571)-272-4200.

Notice of Allowability

Application No.

10/517,928

Applicant(s)

EICHHORST, PETER

Examiner

QUYNH-NHU H. VU

Art Unit

3763

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address--

All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice of Allowance (PTOL-85) or other appropriate communication will be mailed in due course. **THIS NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS.** This application is subject to withdrawal from issue at the initiative of the Office or upon petition by the applicant. See 37 CFR 1.313 and MPEP 1308.

1. ☒ This communication is responsive to 07/03/08.
2. ☒ The allowed claim(s) is/are 1,3-10,12-16,18-20 and 22-25.
3. ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some* c) ☐ None of the:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a)).
- * Certified copies not received: _____.

Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communication to file a reply complying with the requirements noted below. Failure to timely comply will result in ABANDONMENT of this application.

THIS THREE-MONTH PERIOD IS NOT EXTENDABLE.

4. ☐ A SUBSTITUTE OATH OR DECLARATION must be submitted. Note the attached EXAMINER'S AMENDMENT or NOTICE OF INFORMAL PATENT APPLICATION (PTO-152) which gives reason(s) why the oath or declaration is deficient.
5. ☐ CORRECTED DRAWINGS (as "replacement sheets") must be submitted.
- (a) ☐ including changes required by the Notice of Draftsperson's Patent Drawing Review (PTO-948) attached
- 1) ☐ hereto or 2) ☐ to Paper No./Mail Date _____.
- (b) ☐ including changes required by the attached Examiner's Amendment / Comment or in the Office action of Paper No./Mail Date _____.
- Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings in the front (not the back) of each sheet. Replacement sheet(s) should be labeled as such in the header according to 37 CFR 1.121(d).**
6. ☐ DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.

Attachment(s)

- | | |
|--|--|
| 1. <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 5. <input type="checkbox"/> Notice of Informal Patent Application |
| 2. <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 6. <input type="checkbox"/> Interview Summary (PTO-413),
Paper No./Mail Date _____. |
| 3. <input type="checkbox"/> Information Disclosure Statements (PTO/SB/08),
Paper No./Mail Date _____ | 7. <input checked="" type="checkbox"/> Examiner's Amendment/Comment |
| 4. <input type="checkbox"/> Examiner's Comment Regarding Requirement for Deposit
of Biological Material | 8. <input checked="" type="checkbox"/> Examiner's Statement of Reasons for Allowance |
| | 9. <input type="checkbox"/> Other _____. |

Quynh-Nhu H. Vu
Examiner
Art Unit: 3763

EXAMINER'S AMENDMENT

An examiner's amendment to the record appears below. Should the changes and/or additions be unacceptable to applicant, an amendment may be filed as provided by 37 CFR 1.312. To ensure consideration of such an amendment, it MUST be submitted no later than the payment of the issue fee.

Authorization for this examiner's amendment was given in a telephone interview with Mr. Frederick J. Dorchak on 07/03/08 and 07/28/08.

The application has been amended as follows:

IN THE CLAIMS

Claim 1 (currently amended): A device for needle-free injection of a medium into the tissue of a human or an animal, comprising a needle-free pre-injection device comprising a first chamber accommodating a pre-injection medium for production of a high-pressure jet of the pre-injection medium for producing an injection channel by means of a high pressure and a small volume, and a main injection device comprising a second chamber accommodating a medium to be injected, the second chamber medium being injected with a great volume and a low pressure in comparison with the volume and pressure of the pre-injection device; wherein a nozzle intended to be set onto the skin is connected with the chamber of the pre-injection device and with the outlet of the main injection device by way of a kick-back valve, and wherein a pressure-production device that is connected with the chamber of the pre-injection device is configured to produce a high-pressure jet from the nozzle that penetrates the tissue, whereby the chamber of the pre-injection device has a volume sized exclusively for producing an injection channel in the tissue, and the chamber of the main injection device has a volume intended for the medium to be injected; wherein the pre-injection device further comprises a piston; and wherein a membrane is part of the piston, with which the chamber of the injection medium is connected, wherein a pusher is located inside the piston, and wherein when the pressure in the chamber increases, said membrane is deflected in the direction of the pusher to activate the trigger by way of the pusher.

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Claim 4 (currently amended): A device for needle-free production of an injection channel in the tissue of a human or an animal, for introduction of a medium to be injected into the tissue, comprising: ~~wherein~~ a pre-injection device; ~~and is provided ahead of~~ a main injection device that contains the medium to be injected, wherein ~~a chamber of the pre-injection device provided~~ comprises a chamber for accommodation of a pre-injection medium and has a nozzle intended to be set onto the skin, and the pre-injection device further comprises ~~has~~ a pressure-production device for producing a high-pressure jet of the pre-injection medium that exits from the nozzle, and a piston, ~~and~~ wherein the chamber has a volume sized exclusively for producing the injection channel, and wherein the piston further comprises a membrane is part of the piston, with which the chamber of the injection medium is connected, wherein a pusher is located inside the piston, wherein when the nozzle is inserted onto the skin of a patient the pressure in the chamber increases, causing said membrane to be is deflected against the pusher, causing the pusher to be moved against a trigger to activate the trigger in the direction of the pusher to activate the trigger by way of the pusher.

Claim 11 (canceled).

Claim 15 (currently amended): The device as recited in claim I, wherein a the trigger of the pre-injection device can be indirectly activated by the pressure produced by the main injection device deflecting the membrane in the direction of a the pusher.

Claim 25 (currently amended): A method for needle-free injection of a medium into human or animal tissue comprising the steps of:

(a) providing a device comprising a needle-free pre- injection device comprising: a piston; a first chamber accommodating a pre- injection medium for production of a high-pressure jet of the pre-injection medium for producing an injection channel with a high pressure and a small volume and a main injection device comprising a second chamber accommodating a medium to be injected, the medium being

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injected with a great volume and a low pressure in comparison with the volume and pressure of the pre-injection device;

(b) first producing the high-pressure jet of the pre- injection medium via the needle-free pre-injection device;

(c) producing the injection channel with the high-pressure jet; and

(d) subsequently introducing the medium to be injected into the tissue through the injection channel;

wherein a nozzle intended to be set onto the skin is connected with the chamber of the pre-injection device and with the outlet of the main injection device by way of a kick-back valve, and wherein a pressure-production device that is connected with the chamber of the pre-injection device is configured to produce a high-pressure jet from the nozzle that penetrates the tissue, whereby the chamber of the pre-injection device has a volume sized exclusively for producing an injection channel in the tissue, and the chamber of the main injection device has a volume intended for the medium to be injected; wherein a membrane is part of the piston, with which the chamber of the injection medium is connected, wherein a pusher is located inside the piston, and when the pressure in the chamber increases causing said membrane to be deflected in the direction of the pusher to activate the trigger by way of the pusher.

Allowable Subject Matter

Claims 1, 4 and 25 are allowed over the prior art of record as amended in the reply filed 11/05/07 and the Examiner's answer above.

The following is an examiner's statement of reasons for allowance:

The claims in this application have been allowed because the prior art of record fails to disclose either singly or combination the claimed device and method for needle-free injection of a medium into the tissue of a human or an animal having features that a piston; wherein a membrane is part of the piston, with which the chamber of the injection medium is connected, wherein a pusher is located inside the piston, wherein when the nozzle is inserted onto the skin of a patient the pressure in the chamber increases , causing said membrane to be deflected against the pusher, causing the pusher to be moved against a trigger to activate the trigger.

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The closest prior arts of record are Ismach (US 3,805,783); Ismach (US 3,057,349); Knickerbocker (US 5,505,343); Zimmet et al. (US 6,461,867); Zierenberg et al. (US 6,689,092); Neracher (WO 02/49697). However, these references do not disclose the device as claimed or describe above.

Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to QUYNH-NHU H. VU whose telephone number is (571)272-3228. The examiner can normally be reached on 6:00 am to 3:00 pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Nicholas Lucchesi can be reached on 571-272-4977. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Nicholas D Lucchesi/
Supervisory Patent Examiner, Art Unit 3763

Quynh-Nhu H. Vu
Examiner
Art Unit 3763